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# 15 The Industrialization of West Chester

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## **The Industrialization of West Chester**

Bicentennial Lecture by Jim Jones presented  
July 15, 1999 at St. Luke Church, 117 S. Franklin  
Street

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NOTE: This lecture was presented using photographic slides as illustrations including a mixture of historic images of buildings, people, products and advertisements from postcards and books, plus modern photos of industrial sites.

### **The Stages of West Chester Industrialization**

1. 1833-1860: Construction of basic infrastructure (two railroads, gas company, coal and lumber yards)
2. 1865-1873: Businesses based on agriculture (wheel works, nurseries, dairies)
3. 1880-1914: General manufacturing and improved transportation (cream separators, trolleys, autos, paper tags)
4. 1920-1939: More general manufacturing (Schramm air compressors, Atlantic Refining, ice and cold storage)
5. 1945-1960: High tech (penicillin, firefighting)

### **Introduction**

There are two ways to talk about the industrialization of West Chester, and this lecture attempts to incorporate both of them. One is to offer a series of anecdotes that catalogs the rise and fall of various businesses here in West Chester. The second approach is to examine events in West Chester as symptoms of the larger forces that produced the Industrial Revolution.

First, I would like to offer a definition of **industrialization**. Industrialization was a new way to produce things that developed in the late 18th century in Western Europe, spread to the rest of Europe and their colonies during the

19th century, and has spread to major cities in all parts of the world by the 20th century.

Industrial production combines surplus wealth, low-cost energy, efficient transportation, and a high degree of organization to produce goods at a greater pace and in greater quantity than any earlier form of production. As a result, industrialization also results in the creation of (or search for) markets large enough to consume all of the things that are produced.

Despite our experience here in West Chester, industrialization has not totally replaced pre-industrial forms of production--even in Chester County, where people plant vegetable gardens and trade labor with their neighbors. However, industrial forms of production have radically altered life from what it was at the time the Borough was founded in 1799.

### **Rural Beginnings**

Industrialization came to West Chester a bit later than it did to other cities in the area (like Coatesville). As a crossroads town and county seat, West Chester offered a place for local farmers to sell their produce, teamsters to pass the night, and government officials and their aides to find lodging. However, without access to navigable water, it was difficult to transport local produce to other markets. The nearest sources of water power were the Brandywine and Chester Creeks, several miles distant. As a consequence, the earliest examples of industrial enterprises were found elsewhere and, like the area surrounding the town, West Chester remained largely agricultural. As late as the Civil War, there were still working farms within the borough limits.

In the West Chester area, the earliest forms of industrial production were craft enterprises that supplied farmers and teamsters with wagons, harnesses and other equipment. One example was Philip Apple, who had a shop to manufacture tin and copper ware across from the Spread Eagle Tavern in 1826. A year later, William Apple took over the shop and over the next ninety-three years, he and his descendants expanded the business to sell metal products and by the end of the century, plumbing supplies. Most early crafts shops did not do as well, as shown by the number of places listed in the 1857 Borough Directory that were no longer in business by 1878.

### **The First Railroads**

The story of West Chester's industrialization begins, as it did in many other places, with the construction of its first railroad. Railroads were a 19th century

innovation that relied on the invention of a powerful, yet portable power plant - the steam engine. Although steam had been used to generate power in the past, the first modern steam engine was built by James Watt of England in 1770. By the end of the century, steam engines were compact enough to be used for transportation, and in 1819, the Savannah made the first successful crossing of the Atlantic by a steamship. Steam engines became small enough to use in land vehicles, and in 1825 the world's first railroad began its operation in England. The future of railroads were assured in 1829 when Robert Stephenson demonstrated his improved locomotive, "the Rocket," which averaged 29 miles per hour as it outpaced a horse during time trials held in England.

In 1827, the Pennsylvania state government began to charter companies to build the "Main Line of Public Works," a combination of canals, railroads and inclined planes intended to connect Philadelphia to Pittsburgh, and thereby deprive Baltimore of trade with the western part of the state. Elsewhere, private individuals chartered companies to build railroads west from New York City (Mohawk & Hudson), Baltimore (Baltimore & Ohio) and Charleston (Charleston & Hamburg). However, by 1830, there were only 23 miles of completed railroad in the United States.

In West Chester, a group of men met on November 15, 1830 to discuss their concerns about the route of the Pennsylvania "Main Line" -- namely the fact that it did not come to West Chester. In December, the group met again and, with Dr. William Darlington as their leader, formed a committee to build a connector railroad from West Chester to the Main Line. During the next two summers, contractors built a nine-mile line from West Chester to an "intersection" (which later became the site of the town of Malvern) using iron-topped wooden rails laid on stone "sleepers." In October 1833, when the Main Line reached Philadelphia, horse-drawn trains began to operate from West Chester to Philadelphia.

The new railroad had an enormous effect on West Chester. Even before it was finished, optimistic investors began to construct Price's Boarding School and the Mansion House Hotel. The borough created an official market on South Street (modern West Market Street) and William Everhart began to lay out streets and sell building lots in the southwest part of the borough. Beginning in 1834, the railroad hauled limestone and marble from local quarries for the construction of several monumental buildings in the center of town. (the Chester County Bank, for example) Secondary effects included the acquisition of a town clock in 1835, the construction of a county prison in

1838, and the creation of two new fire companies (Good Will in 1833 and Fame in 1838).

A railroad connection did more than encourage new construction in the borough--it also altered the way farmers operated by allowing them to sell perishable goods like fresh milk in Philadelphia. Some local farmers also participated in a short-lived experiment in silk production from 1836 to 1839. The Morris Nurseries were founded about 1849, and in 1853, Abner & Josiah Hoopes and their accountant partner, George Thomas, established the "Cherry Hill Nursery." Both companies shipped plants by mail throughout the region, and by 1881, served markets as far away as Canada and overseas.

### **Early Industrialization: Coal and Iron**

Coatesville and Phoenixville -- not West Chester -- best demonstrate the "classic" relationship of railroads to industrialization. They became steel towns, providing raw material for the construction of railroads in exchange for the raw materials of iron steel, which were transported by the railroads. West Chester did not become a steel town, but it attracted other forms of investment and development that depended on the railroad.

The West Chester Gas Works opened in 1852 to produce illuminating gas from coal brought in by railroad. The borough's Catholic congregation began to construct St. Agnes Church in 1853, using stone and other materials imported by rail. As the railroad became more important, so did proximity to the tracks. Cheyney Nields and Augustus P. Duer began to offer building lots in the part of town nearest the new railroad station at East Market. As the local economy became increasing dependence on the railroad, business owners started complaining about costs and service. In November 1858, a group of businessmen from West Chester and Delaware County, aided by investors from and Philadelphia, completed a new "direct" railroad from Philadelphia to the Borough. The following year, the Pennsylvania Railroad took over the management of the first West Chester Railroad.

### **Post Civil War Boom, 1865-1873**

Records are scanty for the period during the Civil War, but once the war was over, the next big "wave" of industrialization in West Chester began. A large number of small businesses began, like Henry C. Baldwin's planing mill in Mechanics Alley, Damon & Speakman's agricultural machine shop, and Henry Guss' brickyard on East Union Street.

One of West Chester's largest factories began in 1866 when William & Thomas Hoopes began making wooden wagon wheels in a small plant on their farm. The following year, they built a plant on Market Street near the railroad tracks and added a partner to form the Hoopes Brothers & Darlington Wheel Works. It operated at the same site until 1973 when the plant's contents were sold to Vern Barnett of Jonesboro, Arkansas.

To accommodate the growing number of visitors to the town, several new hotels were established, including the Magnolia House, founded by Moses G. Hepburn Jr. Hepburn was a mulatto from a Virginia family, and in 1866, he started a hotel for people of color at the corner of S. Franklin and E. Miner Streets, across from the wheelworks. Later, he founded an "omnibus" company to carry passengers from the train station to the rest of town, but he ultimately became best known as the first person of color to serve on West Chester's borough council.

Each economic boom attracted immigrants who sought work, and provided a market for cheap housing constructed by local builders. Investors and contractors began to build low cost houses for them, using locally-produced brick and wood brought in by the railroad.

### **The Third Wave of Industrialization--1880s**

After a lull in activity caused by the Depression of 1873, a third wave of industrialization took place in West Chester during the 1880s. Not only did the borough finance public works like the West Chester Library (1889), but West Chester received its first steam and electricity generating plant (at the site of the present YMCA) and telephone switchboard, located over William Bell's grocery store at 10 E. Gay Street. Several new lumber and coal yards opened along the railroad tracks. Numerous other stores and small businesses opened during this period, and a new housing construction boom in the southeast started by the end of the decade.

One of the fastest growing industries in this period was in dairy products. To accommodate the growing numbers of farmers who sold milk in Philadelphia, the Pennsylvania Railroad began to install milk platforms at each station where farmers could leave special milk cans to be picked up by train.

A few years later in 1881, Philip M. Sharples founded the Sharpless Cream Separator Works to manufacture a device used to separate cream from milk. By reducing the labor needed to process milk, the cream separator enabled

more people to keep a cow, and enabled farmers to specialize their product for different markets.

Sharpless also utilized innovative business practices, such as advertising and multiple product lines to increase their business. After moving to a site along the railroad tracks on the north side of town in 1889, the Sharpless Separator Works produced dairy equipment until the Depression, when it was acquired by the ESCO Cabinet Company.

Another important borough industry began about the same time. In 1888, the Denney Tag Company of Philadelphia moved to West Chester and began printing tags in the old Barnard Street School. It is worth noting that in order to attract the company to West Chester, Borough Council granted them (and any other firm that employed ten or more people) ten years of relief from Borough taxes.

By 1900, the plant superintendent, Samuel O. Barber formed his own company, the Keystone Tag Company. They produced tags used in shipping, labeling and sorting the goods produced in every industry, so their growth was a direct result of the growth of other industries.

### **Transportation**

As the country industrialized, West Chester remained slightly ahead of the curve on many things, including transportation improvements. In November 1891, the first trolley of the West Chester Street Railway travelled from the borough to Lenape, and by the end of the following year, it opened an amusement park along the Brandywine Creek to stimulate passenger business. By the end of the decade, a second trolley line operated from Philadelphia to West Chester, and within another five years, there were direct lines as far west as Kennett Square and Coatesville.

Burton D. Murdaugh of Oxford built the County's first automobile in 1898, but the following year, Joseph H. Sager bought a Locomobile in New York City for \$800 and brought it to West Chester. (Other sources claim that D. M. Sharpless brought the first automobile to West Chester in 1900.) Max Meyer and Stephen C. Black each constructed steam-powered autos in 1900, and Warren Baldwin and several collaborators built automobiles in 1901.

All of this led to a demand for improved roads. Between 1900 and 1910, the roads leading from West Chester to Philadelphia and Wilmington were paved,

and the borough began to surface its own streets, although in some cases this amounted to no more than covering them with oyster shells.

Although automobiles started to become popular, they were no match for horse teams when it came to heavy hauling. Several of West Chester's farmers used their teams and wagons to move household goods and other large loads. One of them, Gunkle Smith, started the freight-hauling company that bears his son's name (Ralph). In 1916, they acquired their first truck, and expanded into warehousing and livestock transportation.

### **Third Wave of Industrialization--to the end of WWI**

By the beginning of this century, West Chester's industrialization began to extend into areas that were not directly linked to agriculture. The new industries included the manufacture of machinery, electrical equipment, and consumer goods like crayons, knitted textiles and cold storage. This early photo shows West Chester at the turn of the century.

For instance, in 1901, the Sun Electrical Manufacturing Company built a new factory at the corner of Franklin and Lacey Streets for the production of telephone switchboards. Although the company went bankrupt in less than a year, the building was quickly occupied by the Powell Knitting Company and the printing presses of the Village Record. After World War I, it became the home of the ESCO Cabinet Company.

Many smaller businesses also got their start in this period. Baldwin's Electric Shop opened in 1912, and moved to its present location at 30 E. Market Street in 1918.

The present home of the Exton Machine Company, located at 219 Mechanics Alley, was once used by the National Crayon Company. The crayon company was actually founded in Philadelphia in 1885, but it soon moved to West Chester and occupied this building until 1906. Sometime before 1914, Charles E. Lucas Sr., father of the future Burgess of West Chester, opened the "The Lucas Machine Works" to build specialized machinery, repair automobiles and sell lubricants.

Another important West Chester business got its start in Philadelphia in 1900. Christian D. Schramm and a partner started manufacturing small electrical motors, and got a contract to produce machines to power dirigibles during the First World War. They bought the West Chester Engine Company to obtain a supply of gasoline engines, and took over their building just east of the



Borough. By the end of the war, Schramm began to produce portable air compressors, and went on to become one of the world's largest producers of industrial compressors and drilling machinery.

West Chester got its share of new buildings during this period. Two of the most memorable were the new post office (opened in 1906), and the Farmers & Mechanics Building, West Chester's only "skyscraper," which was finished in early 1908. The West Chester State Normal School (founded in 1871) added a number of significant buildings during this period, including Ruby Jones Hall (1899), the Old Library (1902), and Wayne Hall, its first all-male dormitory (1911).

## **People**

The workers in West Chester's industries are barely mentioned in histories written about the borough, but they provided the labor, as well as the majority of the town's residents during its years of greatest growth. Some were direct immigrants from Europe, like many of the Italians who worked in stone masonry and on railroad construction gangs. More were immigrants from rural areas in America who came to town to find steady work.

Despite West Chester's reputation for racial tolerance, the workplace was segregated by race and gender. Only in the construction trades and in the mushroom houses along S. Matlack Street did blacks and whites work for the same employers. Some of West Chester's best known companies had unwritten hiring policies that excluded blacks until well into the 1960s.

Industrialization provided many new ways for individuals to work, not all of which involved jobs in big factories. For instance, Mifflin L. Rigg (1838-1914) was a carpenter who began to construct new homes in the 1890s, after a drop in the stock market induced West Chester's wealthy to shift their money into more profitable investments. With the backing of people like Plummer Jefferis and Edward H. Hall, men like Rigg built houses one at a time, and used the money from each sale to finance their next construction. If all went well, by the time they reached the end of a building lot, there was enough money to pay off the investor for the cost of the land, the materials used to construct the first house, and six percent interest.

Some individuals had to find ways to survive on the "fringes" of the industrial system, especially women and people of color. Mary "Mom-Mom" Townsend was born in West Chester in 1869 and lived on East Nields Street until she died in 1947. With four boys to raise and little education, her job opportunities

were limited, but her husband's limited salary left her with no other option. To earn money, she collected newspapers, junk glass and rags, and sold them to dealers who turned around and resold them to industry as the raw materials for glass and paper. Mom-Mom was successful enough to buy four houses in a row before she died, and leave one to each of her sons.

Even though West Chester's residents were more involved in the industrial economy than their rural neighbors, many also continued to keep animals and raise large gardens within the borough. Chickens were common because they required little space and could be fed with garbage, but borough residents kept pigs, horses and cows as late as World War II. There is little documentation on the persistence of handicrafts in town, but West Chester has been the home of many custom carpenters and furniture makers over the years. Anecdotal evidence suggests that there was no shortage of homemade liquor in the borough during the Prohibition Era. In short, as West Chester industrialized, its residents did not lose the ability to make things for themselves.

### **Health & Environmental Problems**

West Chester's industrialization was not achieved without cost. Substantial degradation of the environment accompanied the growth of businesses like the railroad and the gas company, and the increase in the amount of waste produced by the borough's population.

For instance, every spring, the West Chester Gas Company discharged something into the creek that killed all the fish, prompting concerns from the neighbors in 1874 about whether ice from the creek was safe to use. In 1888, a newspaper reported that "Goose Creek is one of the filthiest streams that flow near West Chester. Nearly all the sewage of the town flows into it, and, besides, a number of water closets sit over it." As late as 1971, the borough sued Wyeth-Ayerst Laboratories for releasing waste water into the creek.

A growing population produced an increasing amount of trash and its disposal was poorly organized at first. A number of informal town dumps were established at the edge of the inhabited part of the borough, but each time the borough expanded, the new houses were built on former dumps. Although the borough government discussed organizing a system of trash cans and garbage collection in the mid-1880s, garbage from West Chester's alleys was used as fill to extend streets in the southeast in the 1890s until neighbors complained about the smell. By 1900, the borough paid hog farmers to collect the garbage, which they used as feed for their animals.

The railroad provided a site for many deaths and injuries, as workers were crushed by heavy equipment, wagons failed to negotiate the grade-crossings at Union Street and Nields Street, and passengers were occasionally injured while jumping from trains.

The worst industrial accident took place in September 1931 when solvent tanks located near the railroad tracks at Union Street leaked into Goose Creek. The resulting oil slick caught fire, resulting in a fire that closed the railroad tracks and required assistance from as far away as Philadelphia. Fortunately, the nearby Atlantic Refining company tanks on S. Franklin Street did not explode, or else the entire southeast side of town might have been consumed. However, neighbors along the creek lost fences and chicken houses, and the Lacey Street bridge over Goose Creek had to be completely replaced.

### **The Last Wave of Industrialization (post-WWII)**

Following World War II, the American economy entered a twenty-year period of prosperity and growth, and West Chester's economy followed suit. A number of new businesses opened in the borough, while a few older ones reorganized on a larger scale. An example of the latter was Grocery Store Products, which came to West Chester in 1929 with the purchase of the Edward H. Jacobs mushroom company. They marketed local mushrooms and other food products with national brand names like "B-n-B" (broiled in butter).

In July 1942, National Foam Systems Inc. opened a plant in West Chester to produce fire-fighting foam for the navy. This company started in Boston in 1817 when James Boyd began to manufacture leather fire hoses. His descendants acquired patents on a variety of firefighting equipment, and during World War II, they received national recognition for their "Bean Soup"--a fire-blanketing foam made of air, water and soybean byproducts which the Navy used to fight ship fires. In 1940, they moved their headquarters from Philadelphia to West Chester, and in 1969 they built a new plant in Exton to assemble fire trucks.

Also in 1942, Reichel Laboratories' began a pilot project for the large-scale production of penicillin. Penicillin was discovered in 1934 by an English scientist, Alexander Fleming, but three local men turned the Chester County Mushroom Laboratories on East Rosedale Avenue into a manufacturing facility. The US government gave the project one of its highest war-time clearances, and by 1943, the process was perfected. The company invested nearly \$1.5 million in enlarged production facilities at 120 N. Walnut.

After the war, Reichel became part of Wyeth Laboratories, which began to construct a major manufacturing facility on East Nields Street in 1950. The plant was enlarged to its present size in 1969

### **Aftermath**

Although West Chester's economy was buoyant as late as 1960, the process of industrialization began to enter a new stage by 1970. Although increased fuel prices are often blamed for the subsequent decline in American manufacturing, the real culprit was further improvements in communication, transportation and the movement of capital that made it possible to establish manufacturing facilities in distant locations. Citizens of other countries showed a desire to emulate the process of industrialization, and a willingness to accept lower salaries and greater health hazards in the pursuit of material well-being.

Meanwhile, a few examples of pre-industrial enterprise survived in West Chester. Alonzo Harvey, born in Embreeville in 1872, was the last active harnessmaker in the Borough. In a 1954 newspaper article, Harvey said "There were seven harness shops in West Chester when I came here and each of them employed three or four mechanics. Nobody goes in for it much anymore." During his lifetime, he worked for Harry Cochran, George Moses, Jack Garrett and M. S. Yearsley. In 1956, he sold his shop, and five years later he died, ending nearly two centuries of local business devoted to the needs of farmers.

By 1962, the West Chester by-pass was already complete and work was underway to turn Route 202 into an expressway north of West Chester. Train service continued until 1986, but trolley service ended in June 1954. Meanwhile, a new office park was under construction in King of Prussia to house General Electric's aerospace research facilities. That, plus the spread of the automobile and computers, ended the age of industrialization in West Chester.

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